

Response and Amendment
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In the specification:

1. Please amend the 2nd complete paragraph on page 85 as follows:

The sensed overall current is compared with a programmably predetermined reference value. On the basis of this comparison, the entire ~~hub~~ power supply and management subsystem 2180 and the nodes connected thereto are together classified as being over-current or normal. The over-current classification may have programmably adjustable thresholds, such as high over-current, and regular over-current.

2. Please amend the 3rd paragraph beginning on page 85 as follows:

The system is operative to control the operation of ~~hubs~~ power supply subsystems and nodes together classified as being over-current in the following manner: If the overall current exceeds a regular overall over-current threshold for at least a predetermined time, power to at least some nodes is either reduced or cut off after the predetermined time. In any event, the overall current is not permitted to exceed the high overall over-current threshold. In accordance with a preferred embodiment of the present invention, various intermediate thresholds may be defined between the regular overall over-current threshold and the high overall over-current threshold and the aforesaid predetermined time to cut-off is determined as a function of which of such intermediate thresholds is exceeded.

3. Please amend the 2nd complete paragraph on page 88 as follows:

Fig. 19D illustrates a technique useful for full or no functionality operation ~~having queue-controlled-priority on a time-sharing prioritized basis~~ in involuntary power management in accordance with a preferred embodiment of the present invention. As seen in Fig. 19D, the system initially determines the total power available to it as well as the total power

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that it is currently supplying to all nodes. The relationship between the current total power consumption (TPC) to the current total power availability (TPA) is then determined

Please amend the paragraphs beginning at the bottom page 92 through the first complete paragraph on page 94 as follows:

Fig. 21D illustrates a situation wherein a node operates in a sleep mode as the result of a sensed fault condition. As seen in Fig. 21D, the node periodically performs a self-test. The self test may be, for example, an attempt to communicate with the hub or power supply and management subsystem. If the node passes the test, it operates normally. If the node fails the test, it operates in the sleep mode.

Reference is now made to Figs. 22A, 22B, 22C and 22D, which are generalized flowcharts each illustrating one possible mechanism for hub or power supply and management subsystem initiated sleep mode operation in a voluntary power management step in the flowchart of Fig. 16.

Fig. 22A illustrates a situation wherein a node operates in a sleep mode as the result of lack of activity for at least a predetermined amount of time. As seen in Fig. 22A, the time duration TD1 since the last activity of the node as sensed by the hub or power supply and management subsystem is measured. If TD1 exceeds typically a few seconds or minutes, in the absence of a user or system input contraindicating sleep mode operation, the node then operates in a sleep mode, which normally involves substantially reduced power requirements.

Fig. 22B illustrates a situation wherein a node operates in a sleep mode as the result of lack of communication for at least a predetermined amount of time. As seen in Fig. 22B, the time duration TD2 since the last communication of the node as sensed by the hub or power supply and management subsystem is measured. If TD2 exceeds typically a few seconds or minutes, in the absence of a user or system input contraindicating sleep mode operation, the node then operates in a sleep mode, which normally involves substantially reduced power requirements.

Fig. 22C illustrates a situation wherein a node operates in a sleep mode in response to clock control from the hub or power supply and management subsystem, such that the node is

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active within a periodically occurring time slot, absent an input from the system or the user. As seen in Fig. 22C, the time slots are defined as times TD3 while the remaining time is defined as TD4. The node determines whether it is currently within the time slot TD3. If not, i.e. during times TD4, it operates in the sleep mode.

Fig. 22D illustrates a situation wherein a node operates in a sleep mode as the result of a fault condition sensed by the hub or power supply and management subsystem. As seen in Fig. 22D, the hub or power supply and management subsystem periodically performs a test of the node. The self test may be, for example, an attempt to communicate with the hub or power supply and management subsystem. If the node passes the test, it operates normally. If the node fails the test, it operates in the sleep mode.

Please amend the 2nd complete paragraph on page 96 as follows:

Fig. 23D illustrates a technique useful for full or no functionality operation on a time-sharing prioritized basis ~~having queue-controlled priority~~ in voluntary power management in accordance with a preferred embodiment of the present invention. As seen in Fig. 23D, the system initially determines the total power allocated to it as well as the total power that it is currently supplying to all nodes. The relationship between the current total power consumption (TPC) to the current total power allocation (TPL) is then determined.

Please amend the first paragraph on page 97 as follows:

It is appreciated that normally it is desirable that the node be informed in advance in a change in the power to be supplied thereto. This may be accomplished by signally signaling along the communications cabling in a usual data transmission mode or in any other suitable mode.